

***Determining the Composition and Collectibility
of Child Support Arrearages***

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**Semi-Annual Performance Report of the Research Project
New Approaches to Collecting Child Support Arrearages:
Determining the Composition and Collectibility of Arrearages**

**Fourth Report
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Fourth Performance Report

This semi-annual progress report covers project activities for the period April - October 2001. The report has three sections. The first includes a brief statement of the project plan and summary of accomplishments. In the second part Carl Formoso presents a second predictive model, a decision tree model, as an aid to predicting child support debt behavior. In the third part Jo Peters provides a first look at results of the case assessment. The financial status report will be sent separately.

Project Plan

This is a study to determine the patterns of debt behavior in Washington State child support cases. Our goals are to understand the processes and components of child support that lead to large debts; document the mitigating effects of interventions on collectibility; determine the impact of law and policies on debt growth; and recommend changes that will lead to lower arrearages.

To accomplish these goals, our objectives in this project are as follows:

- To quantify the rate of arrearage growth;
- To develop a model to predict debt growth outcomes and collectibility;
- To quantify the interaction of parents' usage of public assistance programs, participation in work activity programs, and payment of child support to determine the impact of interventions on debt collectibility;
- To document which field interventions are most effective in working older cases with high arrearages;
- To document the effect of Washington State's statutes, codes, and policies on the life cycle of the child support debt process;
- To prepare recommendations for changes necessary to optimize collectibility of debts, write off bad debt, and minimize future arrearage building;
- To evaluate the effectiveness of DCS programs in light of the federal incentive measure on arrears.

There are several parts to this study. The main part of the project is based on construction and analysis of a large database containing information on child support cases, noncustodial parents, other parties to the cases, and other public program usage. Carl Formoso constructed the database and has

conducted longitudinal data analysis, neural network analysis, and decision tree analysis to develop a model for predicting debt outcomes.

The center of the study is the cohort of all identifiable noncustodial parents (241,731 persons) with open child support cases present on SEMS (the DCS case management computer system) in third quarter 1995. Our longitudinal database enables us to track these individuals for 15 quarters, from fourth quarter 1993 to second quarter 1997. With this cohort we can look back seven quarters and forward seven quarters. This period was chosen because it is a relatively stable period before welfare reform was implemented. The model can then be applied to other time frames.

Through cross-matches with other administrative databases, we can measure networks of program usage, such as public assistance, mental health or alcohol/drug treatment, or vocational rehabilitation.

During the project Carl Formoso has analyzed these data to determine the distribution of arrears patterns (increasing, decreasing, remained same, intermittent). He has used the techniques of logistic and neural network modeling, decision tree modeling, and survival analysis to develop the model for predicting debt outcomes.

The second major part of the study is a case assessment based upon stratified samples representing debt patterns identified by the longitudinal analysis. Its focus is an intensive review of the cases to capture information from case comments and other sources not preserved in SEMS flatfiles and other administrative databases. The case assessment is retrospective, rather than predictive.

This two-tiered analysis of debt patterns on child support cases will allow us to quantify the rate of arrearage change, reliably predict direction of debt change, and explain why the patterns occur. We want to document not only what is happening, but also why it is happening.

Achievements

The project began in October 1999. We received approval to extend the original end date from February 2001 to February 2002. We have completed the research phases of data collection and analysis. Presently we are writing the final report and sharing our results within the agency.

This section summarizes progress toward accomplishing the project's objectives in various parts of the study.

Neural Network Prediction Model

Development of a prediction tool for child support arrearage debt was reported in our third progress report. This tool is able to predict, with up to about 80% accuracy, the direction of change in arrearage debt for individual noncustodial parents (NCPs). The tool uses neural network simulation modeling, requires client information from an eight quarter base period, and makes predictions for three quarters in the future or seven quarters in the future.

Our approach was to first select a small number of data elements (variables) which appeared to have predictive power and then to develop an optimum model to obtain the best predictions. Starting with over one hundred variables, a series of tests resulted in ten variables that consistently showed predictive power. Eight of these are from DCS history, one is earnings history, and one is welfare history. We show that predictability can be improved by inclusion of eight variables derived from history of use of public services and possibly three variables derived from the case studies detailed elsewhere in this report, but these variables are not included in the general models since we do not have this information for all members of the cohort, and this information would usually not be available in applications of the models.

The prediction tool does not attempt to make predictions for all NCPs submitted, but is able to select those NCPs for whom outcomes can be more reliably predicted. It appears that for a general group of NCPs third quarter predictions will be made for about 60% of the individuals and up to about 75% of the predictions will be correct; seventh quarter predictions will be made for about 50% of the individuals and up to about 70% of the predictions will be correct. Better predictions can be made by pre-selecting individuals based on their history. For example, pre-selecting individuals with the highest earnings allowed third quarter predictions to be made for 80% of the individuals and 83% of the predictions were correct. Applications of the prediction tool to newly defined NCP cohorts show promising results.

Case Assessment Work

We hired an experienced support enforcement officer (SEO) as research analyst to review the sample cases on SEMS and enter data into an Access datafile. This was far more complex than most coding and data entry work. It required a thorough knowledge of DCS and the IV-D program and ability to maneuver through both IV-A and IV-D computer systems.

Jeannie Anthony (now Bowen) worked on the project from August 2000 through February 2001. She participated in developing the case assessment questionnaire. In addition to drafting some of the questions, she helped to translate the written instrument into Microsoft Access format. She reviewed the sample cases on SEMS and coded information directly into the Access file. (The

case assessment questionnaire was included in our second performance report.)¹

Jo Peters then incorporated the coded assessment into a much larger database for the sample parents, working in SPSS. The file includes data matches with SEMS extracts, providing detail on order history and updated payment records.

After several months of data analysis, Jo is now writing the final report on the case assessment. Some tables with brief description are included as part 3 of this progress report. Jo also used three of these tables in her panel presentation at the Family Support Council annual conference in early October. This conference brings together prosecuting attorneys and DCS staff to discuss child support issues.

Review of Programs, Policies, Initiatives

Two other parts of the study were substantially completed during the first six months of the project. We examined the contribution of various programs, including federally mandated ones, to increasing DCS collections on child support arrears. We examined DCS field office pilot projects and other local initiatives to assess their role in reducing child support debt. Of particular interest were field office projects implemented as part of WorkFirst (Washington's welfare-to-work program). We also investigated projects specifically aimed at hard-to-work cases with large debts. Our first progress report discussed DCS initiatives in some detail.²

Another part of the study is to review Washington statutes and policies that govern how child support debt is handled over the lifetime of the case. Washington law contains provisions for charging off child support debts deemed uncollectible or reducing such debts for hardship when the debts are owed to the state (i.e., DSHS). Such reviews are conducted on a case-by-case basis as requested.

Our first progress report discussed the impact of certain statutes and policies, such as the statute of limitations on child support debt, requiring the noncustodial parent to sign a waiver of the statute in return for lowering monthly payment amounts, and the use of imputed income in setting order amounts. The report reviewed current DCS initiatives aimed at speeding up and simplifying the process of correcting orders. It discussed initiatives to streamline the debt reduction process as well.

For more detail on the project's schedule of work, please see the Project Time Line Chart attached as an Appendix.

¹ *Second Performance Report*, October 2000, Appendix B, pp. 7-16.

² *First Performance Report*, May 2000, especially pp. 18-38.

Part 2

Decision Tree Prediction Model

Carl Formoso

In recent work we have developed a second prediction tool for child support arrearage debt using inductive decision tree modeling. This tool is easier to understand and is useful for making quick predictions, but it is not as powerful as the previously developed neural network tool. Decision trees are familiar constructs, often implemented in a 'if.....then' question series which allows selection of sub-groups strongly enriched (or depleted) in a particular outcome. For example, from a general group of non-custodial parents (NCPs) this tool is able to select a 10% sub-group of individuals who have about an 80% probability of increased arrearage three quarters in the future, and a different 10% sub-group who have about an 8% probability of increased arrearage three quarters in the future.

In developing the decision tree model we used the same data used in developing the neural network model. This data was obtained for a cohort of all identifiable NCPs in Division of Child Support (DCS) records in third quarter of calendar year 1995 (95Q3). All data were from administrative sources. Fifteen quarters (from 93Q4 to 97Q2) of DCS records were extracted for information on the 241,731 individuals in this cohort. Employment and earnings history for these individuals were extracted from Employment Security Department (ESD) records. Welfare records from the Office of Financial Management (OFM) were extracted to obtain public assistance history for these individuals. Our previous work identified the ten input variables defined in Table 1 as useful predictors of arrearage behavior as encapsulated by the four outcome variables defined in Table 2. The basic approach is to use input variable data to predict outcomes and measure the validity of predictions using the known outcome data. See previous progress reports for more detail.

Table 1: Model Input Variables

Data from 8 Quarter Base Period

Variable	Definition	Type
DurZ	# of quarters with no change in arrears	Numerical
DurN	# of quarters with decreasing arrears	Numerical
DurP	# of quarters with increasing arrears	Numerical
T95Q3	Arrearage debt in final base quarter	Numerical
Sbr0	Not subrogated debt case in final base quarter	Indicator
Earn	Average quarterly earning	Numerical
Type0	Case type not specified in final base quarter	Indicator
Payind	Automated payment processing in final base quarter	Indicator
Elig	# of months NCP on public assistance	Numerical
Iscp	Custodial parent not in WA in final base quarter	Indicator

Table 2: Model Outcome Variables

	Q3 (96Q2)	Q7 (97Q2)
<i>UP</i>	Debt increase \$300 or more	Debt increase \$700 or more
<i>DOWN</i>	Debt decrease \$300 or more	Debt decrease \$700 or more
<i>SAME</i>	Debt change less than \$300	Debt change less than \$700
<i>MISS</i>	Not in 96Q2 DCS data	Not in 97Q2 DCS data

To limit the enormous number of possible decision trees we have chosen to convert all numerical variables to dichotomous indicators, and to only pursue decision trees with three levels – this means that each individual will be queried at three decision points, and at the end of the decision process individuals will have been sorted into eight groups. We have experimented with expanding the numerical variable conversion to four levels, which produced a richer variety of decision trees but did not appear to improve predictability. We also experimented with taking each arrearage outcome separately, or treating them together as we do in the neural network prediction model. A separate decision tree for each outcome gave better predictability. We limit ourselves to models predicting the outcomes *UP*, *DOWN*, and *SAME*; it does not appear possible to accurately predict the outcome *MISS*.

The basic decision tree framework used is shown in Figure 1. Individuals are hierarchically classified by entering from the left and leaving on the right, with their path through the system determined by the seven decision points labeled D1 through D7. There are eight exit groups and our aim is to design decision points such that some of the exit groups are strongly enriched, or strongly depleted, in the outcome of interest. The decision paths leading to those exits can then be used in prediction.

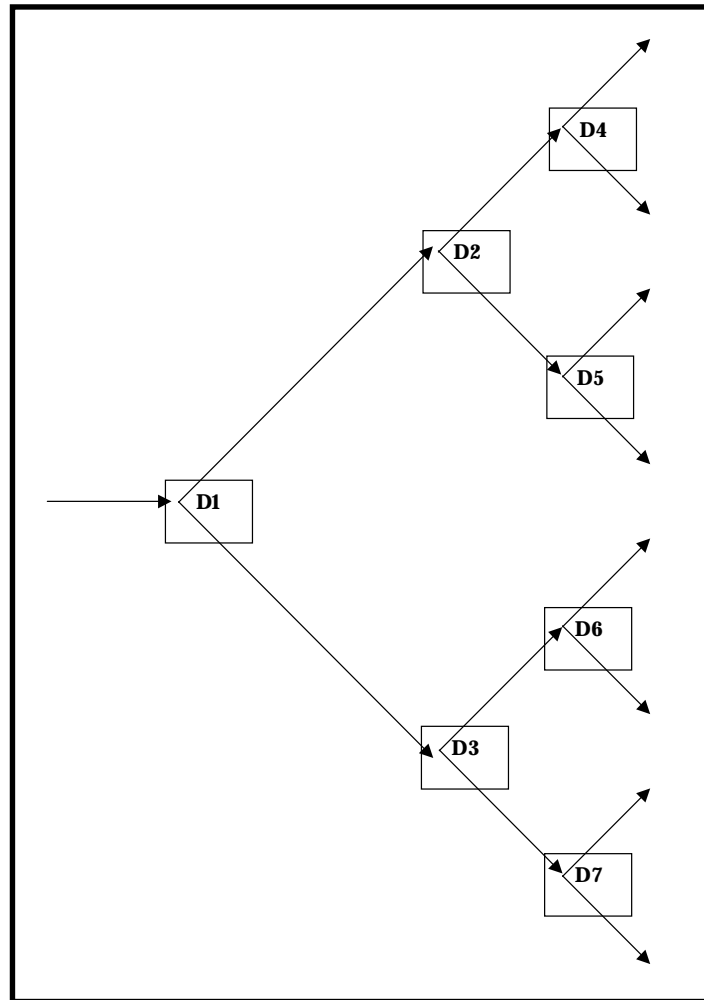


Figure 1: Basic Decision Tree Framework

We use three techniques in selecting the best variable to query at each decision point, and in determining threshold values in converting continuous variables to dichotomous. The first technique is based on information theory, and looks for the biggest adjusted information gain after splitting the group. For example, a query which allowed a perfect separation of the input group (say into a sub-group in which all individuals had the **UP** outcome and a sub-group in which none of the individuals had the **UP** outcome) would have an information gain of 100% since no further information would be necessary for classification. The second technique is maximum likelihood, which in this instance is related to an unadjusted information gain. The third technique constructs a contingency table for each variable and chooses the variable producing the largest chi square. Continuous variables are converted at the input to the decision tree. For each continuous variable up to twenty candidate dichotomous variables are created, and the one which gives the best results at the first decision point is used as part of the input data set. We also experimented with re-dichotomization of variables at each decision point, but this did not improve results.

Table 3 shows our best results for Q3 predictions. We have chosen decision pathways which lead to the best discrimination, compromising the number of individuals who fall into the predicted categories. As Table 1 shows, three of the prediction categories have about 80% probability of being correct, and one of the categories is over 90% probable. Table 1 also summarizes the decision tree pathways as decision rules. For example, if $\text{durP} \leq 3Q$, then if $\text{Type0}=1$, then if $\text{PayInd}=1$, then there is a 92.3% probability that Q3 arrears will be less than \$300 higher than current arrears. Once a set of decision rules has been determined they could in principle be used in any order, but in practice it is best to remember that these are hierarchical rules. For the **Not Up** outcome, for example, it has been determined that durP is the best variable with which to query all input individuals. If durP is unknown there may be no point in trying to make a prediction, while reasonable predictions may be possible if PayInd is not known.

**Table 3: Best Decision Tree Results for Q3 Predictions,
and Decision Rules**

outcome	Test*	1 st Level	2 nd Level	3 rd Level	% of Cohort	% w outcome
Not Up	LL	durP	Type0	PayInd		
		≤ 3Q	1	1	10.5%	92.3%
Up	GR	durP	T95Q3	PayInd		
		>6Q	>\$4107	1	10.0%	80.4%
Down	GR	T95Q3	durN	Elig		
		>\$262	>6Q	≤ 2mo	3.4%	76.2%
Same	Chi	T95Q3	PayInd	Type0		
		≤ \$340	1	0	21.0%	80.5%

* decision criterion used: LL is log likelihood, GR is information gain ratio which is an adjusted information measure, Chi is chi squared.

Part 3

A First Look at the Case Assessment

Jo Peters

The case assessment is an intensive look at a stratified sample representing the debt patterns identified by the longitudinal analysis. A sample of 200 noncustodial parents was selected from each of the four debt patterns. We then constructed a separate database for this sample.

The case assessment is both more limited and more comprehensive than the 15-quarter longitudinal analysis. The case assessment deals with only a small fraction of the noncustodial parents who formed the basis for the larger analysis and modeling described above. Nevertheless, it is more comprehensive about time frames examined. It extends over the history of the noncustodial parent's involvement with DCS, from the first case opening until the end of February 2001.

The focus here was an intensive review of the cases to capture information from case comments and other sources not preserved in SEMS flatfiles and other administrative databases. For example, we wanted to know the basis used for setting the original child support amount (actual income, imputed median net, etc.) We wanted to know what locate and collection tools were used. When noncustodial parents have multiple cases, how much overlap is there among those cases (in children, custodial parents, and orders)?

The centerpiece of the case assessment is a coded case review conducted by an experienced collection staff member. We developed a case review coding instrument that allowed the researcher to review the sample cases on SEMS and code her assessment directly into a Microsoft Access database while working at the computer. (A copy of the coding questionnaire was included in the Second Performance Report as Appendix B.)

A field office support enforcement officer (SEO) was hired as research analyst. The analyst, Jean Anthony Bowen, reviewed the case to determine how the obligation was set for the original order, the history of modifications, the noncustodial parent's income history, number of child support cases, payment record, and significant DCS enforcement actions and other interventions. The SEO also checked for evidence that DCS was aware of such factors as disability, public assistance usage, corrections record, and other barriers to collection, and evaluated DCS response in such instances.

We supplemented the coded case review by matching the noncustodial parents and their cases to the March 2001 SEMS flatfile extract to get recent payment and other updates. We also incorporated selected key variables (covered employment earnings, monthly order amounts, and arrears) from the 15-quarter database constructed for the macroanalysis and model building. The result is a rich collection of information about the sample noncustodial parents and their history with DCS.

The tables presented here provide a first look at some of the findings from the case assessment. We provide a general profile of the noncustodial parents by debt pattern, highlighting differences in child support obligations and payment records. We examine the fifteen-quarter period that formed the basis for the identification of debt patterns. Here our focus is the relationship between monthly order amounts, payments, arrears, and reported wages for covered employment.

Then we consider some factors that may help explain the development and maintenance of those debt patterns. We look briefly at orders and modifications. We take a look at the relationship between locate work and debt patterns. We examine the distribution of barriers to collection across the debt patterns.

The Sample

The sample represents noncustodial parents whose arrears history fell into one of four patterns. All of them had open cases in third quarter 1995, and DCS had a social security number documented for each noncustodial parent. They had SEMS records from at least fourth quarter 1993 through second quarter 1997. The characterization of debt pattern is based on these fifteen quarters. The four debt patterns are *steadily increasing arrears* over the period, *steadily decreasing arrears*, *intermittent* (up and down for at least four sequences), and *no change* in debt over the period.

This choice of sample criteria provides a new perspective on the DCS case load. In most research we have focused on cases that were severely delinquent, with debts over a certain dollar amount. Or we have focused on cases of a certain type or on public assistance history. Or we have looked at particular issues, such as paternity establishment. Here we get a snapshot of the whole case load—or at least of those noncustodial parents whose history with DCS extends for at least four years. We get a glimpse of noncustodial parents who pay regularly, of “average” cases that make up the bulk of the field office cases.

The case assessment used a stratified sampling strategy. A separate sample of 200 noncustodial parents was drawn from each debt pattern. But the number of noncustodial parents represented varied dramatically by debt pattern. There were 13,993 with continuously *increasing* arrears; only 3,084 with continuously *decreasing* arrears; and 11,015 with *no change* in arrears through the period. By contrast, the *intermittent* pattern contained 133,702 noncustodial parents

who had at least four separate spells with both increases and decreases. Obviously, the decreasing pattern is much better represented than the intermittent.

The tables below show us the mean, median, and often the percentages within each debt pattern, and it is meaningful to compare these differences. But we cannot calculate unified statistics for all the sample and generalize to the whole case load. That is, if 50 percent of the sample parents have at least one paternity order, we cannot conclude that therefore half of all the noncustodial parents in the case load from 1993-1997 also had a paternity order. A stratified sample is mainly useful for showing the distribution of a characteristic within a group, or the differences in distribution of that characteristic between groups. On the other hand, if we saw similar percentages for each debt pattern, we could have more confidence that the percentage reflected the case load.

Four Debt Patterns

The four debt patterns show both intriguing differences and similarities, which are best recognized by studying the tables. At the outset, a thumbnail sketch of each may help to set the stage.

It would be misleading to see the Increasing arrears and Decreasing arrears patterns as in some sense “balancing” or “offsetting” each other. They are not symmetrical. Over the 15-quarter period, the Decreasing group reduced their debt by half. Meanwhile, the Increasing group doubled their debt. Unfortunately, the latter represent four times as many parents in the case load as the Decreasing sample. (Consider also the simple math involved. Suppose two individuals each start with a debt of \$1,000. The one who reduces his debt by half ends up with a \$500 debt. The other person doubles his debt to \$2,000—four times that of his counterpart.)

The Intermittent pattern represented by far the largest number of noncustodial parents. It is somewhat reassuring to see that for the majority, even though debt climbed at times, the increase was usually temporary, and the parent’s payments would resume. On the other hand, this group showed at least four cycles of increase and decrease, and such a roller coaster pattern may represent more work for the SEO.

On some dimensions, the Intermittent group seems to resemble the Increasing group more than the other debt patterns. It is therefore thought provoking to grapple with the question of what factors prevent more of the majority from sliding into the ranks of steadily increasing arrears.

The No Change pattern seems to represent the “best” and the “worst.” There are more stark contrasts *within* this pattern than in the others. The “best” are parents whose debt did not grow because they paid current support on time and did not accrue arrears. These parents appear to have the highest income of any pattern.

The “worst” are 29 parents for whom DCS has never managed to establish a child support order. Their debt did not change because in fact they have never had a debt. Strictly speaking, their arrears are not \$.00 but N.A., “not applicable.” We retained these parents in the sample because they represent an important segment of the most hard-to-work cases DCS has. These are parents for whom we have a social security number but nevertheless cannot establish an order. Because they lack an order and a debt, we have not included such cases in our prior research on hard-to-collect cases.

In between these two extremes are a number of arrears-only cases. The debt did not change in 15 quarters because the noncustodial parents made no payments, and there was no current support to grow the debt.

Profile of the Obligations, Payments, and Debt

Table 4 provides a quick summary of the monthly order amounts, payments, and remaining debt of the sample, according to the debt pattern of the noncustodial parents. This is the status as of March 1, 2001. The viewpoint here is more embracing than the 15 quarters that established the debt patterns.

For reasons explained above, we do not provide overall totals in any of the tables. The initial sample included 800 noncustodial parents, 200 from each debt pattern. We were forced to exclude six after initial review when the coder discovered that these parents in fact did not have IV-D cases valid for study. Hence the sample total is 794 noncustodial parents.

As the table shows, the Increasing arrears pattern has had the highest monthly order amounts, the highest debt, and the lowest payments. Despite this, over 88 percent of these parents have made at least one payment (though not on each of their cases).

In fact, the proportion of parents in each pattern who has made one or more payments seems strikingly high, varying from nearly 86 percent of the parents with orders in the No Change pattern to 100 percent of those in the Decreasing pattern.

The median amount paid by parents in the Increasing arrears pattern is only about one tenth of the median amount of debt. For the other debt patterns the relationship between payments and debt is reversed, although the precise fractions differ greatly.

Not all debt arises from failure to pay the ordered current support on time. As this table shows, initial judgments for back support set at the time the order was entered created sizable arrearages before DCS ever started collection services. Most of the court-ordered judgments accompanied paternity orders established by prosecutors for DCS. Smaller amounts of initial debt were established with administrative orders, again before DCS started collecting. We found that the majority of the initial debt was owed to DSHS. A smaller amount

Table 4. Payments and Debts of the Noncustodial Parents

	<i>Debt Pattern of Noncustodial Parent</i>			
	<i>Increasing</i> N=199	<i>Decreasing</i> N=199	<i>Intermittent</i> N=199	<i>No Change</i> N=168 ^a
Maximum Sum of Monthly Order Amounts ^b				
Mean	\$ 428.68	\$ 332.43	\$ 373.42	\$ 323.49
Median	400.00	284.00	327.00	300.00
Initial Debt at Establishment ^c				
Mean	5,411.70	3,306.18	2,401.43	\$1,465.36
Median	1,510.03	522.81	250.00	.00
Of which:				
Court-ordered judgments ^d				
Mean	4,632.40	2,676.30	1,562.47	1,081.27
Median	.00	.00	.00	.00
Initial debt set with administrative orders ^e				
Mean	779.30	629.87	838.96	384.09
Median	.00	.00	.00	.00
NCP has made payment(s)	88.4 %	100 %	95.5 %	85.7 %
Total paid (3/2001)				
Mean	7,122.14	27,350.62	21,087.78	25,416.83
Median	3,182.71	22,607.91	15,142.45	21,596.65
Debt on open cases (3/01/2001)				
Mean	34,722.48	3,569.80	6,257.76	4,142.80
Median	30,623.75	1,056.15	1,359.23	63.22
Debt remaining on closed cases				
Mean	6,449.65	152.43	757.66	384.79
Median	.00	.00	.00	.00

^aOf the 197 NCPs in the No Change pattern, 29 are omitted because no order was established.

^bThis amount is the maximum monthly order amount (monthly current support order) the NCP has had at any one time on all the cases open (summed) at that time.

^cThis is the lump-sum amount established initially in addition to the current support order. Only IV-D debt is included here. Many NCPs also had paternity or medical subros which are not IV-D debt and not included in the payment or debt totals shown.

^dOf court-ordered judgments, most of the total is comprised of money owed to DSHS,. (Increasing, 91.3 percent; Decreasing, 55.2 percent; Intermittent, 90.4 percent; No Change, 86.5 percent.) A smaller proportion comes from judgments for the custodial parent. That is, most initial judgments come from Washington court orders, and of this, most it seems, comes from paternity orders entered by the prosecutors. Only a tiny proportion of initial debt comes from judgments set by other states, which are "out of our control."

^eAgain, most of the administrative-ordered initial debt is owed to DSHS, probably established through the work of DCS staff. (Increasing, 81.8 percent; Decreasing, 87.9 percent; Intermittent, 89.6 percent; No Change, 79.3 percent.)

was owed to the custodial parent. Only a tiny proportion came from judgments set by other states.

We will examine the issue of initial debt in much more detail in the final project report. Policies on establishing initial debt are determined by state rather than federal law and vary greatly from state to state. Initial debt is a permitted exception to the federal law requiring that support orders be based on income. In recent years several nationally known child support researchers have discussed the impact of initial judgments on low-income noncustodial parents.

Aside from the possible contribution of initial debt, what factors help to explain why noncustodial parents ended up in these debt patterns? The remaining tables in this section of the progress report help us begin to answer this question.

Age of the Obligation

One of the characteristics that differentiates the Decreasing arrears pattern from the others is the age of the parent's maximum child support obligation. To see this difference we must look earlier, before the 15-quarter period. Over 40 percent of the NCPs in the Decreasing pattern faced their largest current support obligation prior to 1993. For the other three patterns, a proportion ranging from 76.3 percent to 85.9 percent faced their largest obligations during the 15 quarters. (See Table 5.)

The difference, then, lies partially in the "life cycle" of child support obligations. Obviously, in order to have steadily decreasing arrears for 15 quarters, the parent had accrued a debt earlier. The exemplary payment behavior exhibited for 15 quarters had been different earlier. In fact, the case review showed that collection staff had struggled to get payments from some of these parents in earlier years. This was not always a smooth payment pattern.

By comparison with the Decreasing pattern, the other three are newer obligations, at least for the period when they owed the maximum amount of current support. But the table also shows that for each period, the maximum current support obligation was lower for parents in the Decreasing pattern than in the Increasing pattern. Although "life cycle" of the obligation is part of the story, it is by no means the most important chapter.

Table 5. Period of Maximum Current Support Obligation

Period of NCP's Maximum Current Support Obligation ^a	Debt Pattern of Noncustodial Parent (NCP)			
	Increasing	Decreasing ^b	Intermittent ^b	No Change ^b
Before 1993 N (Percent)	20 (10.1)	76 (40.4)	18 (9.1)	25 (16.1)
Maximum MOA Mean	\$ 490.50	\$ 361.19	\$ 300.97	\$ 344.62
Median	\$ 423.00	\$ 300.00	\$ 212.50	\$ 314.00
Year maximum MOA started ^c	1987	1983	1983	1986
Year maximum MOA ended ^c	1990	1989	1988	1989
1993-1997 N (Percent)	171 (85.9)	106 (56.4)	167 (84.3)	119 (76.3)
Maximum MOA Mean	\$ 416.17	\$ 337.02	\$ 371.71	\$ 350.81
Median	\$ 397.00	\$ 291.28	\$ 327.00	\$ 307.00
Year maximum MOA started	1991	1988	1991	1990
Year maximum MOA ended	1997	1996	1997	1996
After 1997 N (Percent)	8 (4.0)	6 (3.2)	13 (6.6)	12 (7.7)
Maximum MOA Mean	\$ 541.60	\$ 496.58	\$ 524.39	\$ 331.97
Median	\$ 533.00	\$ 474.50	\$ 545.96	\$ 317.50
Year maximum MOA started	1998	1998	1999	1998
Year maximum MOA ended	1999	2000	2000	2000
All N	199 (100.0)	188 (100.0)	198 (100.0)	156 (100.0)
Maximum MOA Mean	\$ 428.68	\$ 351.88	\$ 375.30	\$ 348.37
Median	\$ 400.00	\$ 300.00	\$ 327.00	\$ 308.50
Year maximum MOA started	1991	1986	1991	1990
Year maximum MOA ended	1997	1993	1993	1995

^aThe maximum current support obligation, or maximum sum of monthly order amounts, is the largest current support amount the noncustodial parent had over the course of the NCP's time in the DCS case load, not just during the 15-quarter period. If the NCP had more than one case, this is the maximum current support amount owed at one time, summing the order amounts of cases open at that time (hence the abbreviation MAXSMOA).

^bThe table omits 53 noncustodial parents, including 29 (from the No Change pattern) who had no order established, and 24 who only had zero orders (orders where no current support was set). The zero orders were distributed as follows: Decreasing pattern, 11; Intermittent, 1; and No Change, 12.

^cThe year is the average (mean).

What Happened During the 15-Quarter Period?

The assignment of debt patterns was based on data from the 15-quarter period from October 1993 through June 1997. As we saw above, some noncustodial parents showed different behavior prior to that time. But our case review showed that rather few changed patterns after that period.

What can we learn from the 15-quarter data about the factors that shaped these debt patterns? Here we look simply at the relationship among three central variables: monthly order amounts, wages, and payments.

Table 6 shows monthly order amounts (current support orders) by debt pattern for the 15 quarters. The amounts here are averaged over the 15 quarters. Monthly orders in the Increasing arrears debt pattern have the highest mean and median, even the highest maximum. The lowest mean and median are in the Decreasing debt pattern.

Table 6. Current Support Amounts for 15 Quarters

	<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Noncustodial parents with obligation established	199	199	199	168
Current support (amount averaged over quarters) ^a				
N (NCPs)	199	179	188	136
Mean	\$ 360.85	\$ 161.27	\$ 255.87	\$ 259.16
Median	334.93	96.00	190.74	231.00
Maximum	1,691.70	1,403.00	1,376.40	1,158.00
Arrears-only (MOA \$.00)				
N (NCPs)	0	20	11	32
Initiating Interstate				
N (NCPs)	48	34	30	32
% of NCPs	24.1	17.1	15.1	19.0
Current support				
N (NCPs)	48	30	27	17
Mean	\$ 314.50	\$ 109.65	\$ 191.87	\$ 93.65
Median	308.07	33.20	150.00	17.22
Maximum	995.40	773.33	559.83	900.00
Arrears-only				
N (NCPs)	0	4	3	15

^a If the parent had more than one case open at the time, this is the sum of the monthly order amounts.

The bottom half of the table shows the contribution of Initiating Interstate (IJ) cases to the totals above. The Initiating Interstate cases have lower current support orders—mean, median, and maximum—than the other parents in that corresponding debt pattern. Thus their effect is to lower the average monthly order amounts. The highest share of Initiating Interstate parents (24.1 percent) belongs to the Increasing debt pattern. Nevertheless, the mean current support for the Increasing pattern is more than one hundred dollars higher than for two other patterns, and more than twice as high as the Decreasing debt pattern.

Wages

Wages included here are earnings on covered employment as reported to Employment Security for the 15 quarters. We have excluded noncustodial parents with Initiating Interstate cases from Table 7 because we do not have complete wage data for out-of-state employment. However, we included noncustodial parents without support orders.

Table 7. Noncustodial Parents' Wages for 15 Quarters as Reported to Employment Security^a

	<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Noncustodial Parents, excluding Initiating Interstate ^b	151	165	169	146
Quarters with reported wages above zero	N = 100	N = 113	N = 135	N = 97
Mean	5.79	12.78	10.60	11.64
Median	4.50	15.00	12.00	15.00
Total wages for 15 quarters	N = 100	N = 113	N = 135	N = 97
Mean	\$ 11,076.87	\$ 91,014.13	\$ 64,117.76	\$106,976.27
Median	7,623.61	86,229.12	44,973.30	112,715.85
Average monthly wage	N = 100	N = 113	N = 135	N = 97
Mean	\$ 243.72	\$ 2,022.54	\$ 1,424.84	\$ 2,377.25
Median	168.02	1,916.20	999.41	2,504.80

^aSource: Washington State Employment Security Department data on covered employment for fourth quarter 1993 through second quarter 1997.

^bThis table excludes Initiating Interstate cases because Washington State's Employment Security Department is not likely to get wages reported for these noncustodial parents.

None of the patterns had wages reported for all of the noncustodial parents. The Intermittent pattern shows the highest number, with 135 out of 169.

Noncustodial parents in the Increasing debt pattern have fewer quarters of wages for covered employment than the others, with a mean of 5.79 and a median of 4.50. By comparison, the Decreasing and No Change patterns show a median of 15 quarters of wages out of the total 15.

Not surprisingly, the Increasing arrears pattern had the lowest wages by far. For these 100 parents, their wages for the 15 quarters when averaged out to a monthly level showed a mean of \$243.72 with a median of \$168.02. The No Change pattern had the smallest number of reported wages but the highest mean and median monthly wage, at \$2,377.25 and \$2,504.80, respectively.

The Intermittent pattern showed the highest number of parents with reported wages, but their wages were much lower than the Decreasing and No Change patterns. With a monthly mean of \$1,424.84 and a median of \$999.41, their median was closer to the Increasing pattern than to the other two patterns. Intermittent pattern parents appeared to have relatively steady but low wages during the 15 quarters.

Relationship between Support Orders and Wages

Thus far we have looked at the monthly order amounts and wages for the 15 quarters. Table 8 brings the two variables together. Because we lack complete wage data for Initiating Interstate parents, we have excluded them from the table. Because we are comparing wages with orders, we have excluded the 29 noncustodial parents in the No Change pattern for whom DCS has not established an obligation. Consequently, the numbers here are somewhat different than in the previous two tables.

The bottom part of the table shows a ratio of monthly order amount to wages (abbreviated as MTW ratio). We computed this by dividing the monthly order by the monthly wage. Obviously, we could only compute this for noncustodial parents with current support orders and reported wages greater than zero. This left us with about half of the noncustodial parents in the Increasing and Decreasing patterns; almost two-thirds of the Intermittent pattern; and about half of those noncustodial parents in the No Change pattern who have established obligations, but 44 percent of the entire pattern.

In presenting the MTW ratio, we included both the mean and median. The mean is not a very useful indicator, because of its sensitivity to outliers. An extreme value in either an individual's MOA or wages has excessive influence on the mean. The median, however, appears to be a useful indicator.

Table 8. Ratio of Monthly Order Amount to Wages for 15 Quarters

<i>NCPs with Orders, Excluding Initiating Interstate (IJ)</i>	<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Noncustodial Parents	151	165	169	136
NCPs with current support orders	151	149	161	119
MOA (Current support) averaged over period				
Mean	\$ 375.58	\$ 171.66	\$ 266.60	\$ 282.80
Median	340.00	116.67	200.00	290.27
NCPs owing arrears only (MOA=\$.00)	0	16	8	17
NCPs with reported wages	100	113	135	94
Monthly wage averaged over period				
Mean	\$ 246.15	\$2,022.54	\$1,424.84	\$2,442.00
Median	169.41	1,916.20	999.41	2,527.26
Ratio of MOA to wages (MTW)	N=100	101	129	86
Mean	23.321	.780	.713	.516
Median	1.721	.057	.193	.114

Of the four debt patterns, the Decreasing pattern shows the smallest ratio of current support to wages. The MOA is only 5.7 percent of the monthly wage. This would seem to be an easy bill to pay. For the Intermittent pattern, current support would amount to 19.3 percent of monthly wages.

The Increasing pattern faced quite another situation. For these parents the median MTW ratio is 1.7. In other words, the monthly order was 1.7 times as much as monthly wages.

Payments

With such disparity in the ratio of current support order to wages, the payment outcomes are not surprising.

Table 9 summarizes payments over the 15 quarters. This table shows how payments on Initiating Interstate (IJ) cases contributed to the total.

Table 9. Payments Over 15 Quarters

	<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Noncustodial Parents with orders established	199	199	199	168
No payments in 15 quarters	92	0	18	60
Percentage	46.2%		9.9%	35.7%
Made payment(s)	107	199	181	108
Percentage	53.8%	100.0%	91.0%	64.3%
Amount paid				
Mean	\$ 1,113.89	\$ 11,708.38	\$ 8,677.22	\$ 9,179.91
Median	74.85	10,480.32	5,959.56	6,687.00
Sum	221,665.00	2,329,968.45	1,726,767.49	1,542,225.36
Share of Initiating Interstate (IJ)	48	34	30	32
Percentage	24.1%	17.1%	15.1%	19.0%
No payments	21	0	5	26
Made payment	27	34	25	6
Amount paid				
Mean	\$ 1,204.40	\$ 9,490.64	\$ 6,551.60	\$ 2,085.92
Median	107.94	7,388.63	3,720.55	.00
Sum	57,811.21	322,681.68	196,547.91	66,749.43
IJ share of total sum collected	26.1%	13.8%	11.4%	4.3%

The percentage of noncustodial parents who paid nothing during the 15 quarters is quite high for two debt patterns: 46.2 percent in the Increasing arrears pattern and 35.7 percent in the No Change pattern.

Yet when we look beyond the 15 quarters at the total performance of noncustodial parents, as in Table 4, the percentage who have never paid drops considerably, to 11.6 for Increasing, and 14.3 for the No Change pattern. If we compare payment amounts between the two tables, we also find that for every debt pattern, the amounts paid during the 15 quarters are much smaller than for the total history of payments.

Nevertheless, the relative rankings are the same. The Decreasing paid most, followed by the No Change, then the Intermittent, and last, trailing the rest by a large margin, the Increasing pattern.

The impact of Initiating Interstate cases varies by debt pattern. The IJ cases improve payment statistics slightly for the Increasing pattern. They drag down collection figures for the Decreasing and Intermittent patterns more than they help the Increasing pattern. Initiating Interstate cases hurt collections significantly for the No Change pattern. They compose 19 percent of the No Change noncustodial parents, but only 4.3 percent of collections.

Table 10 shows collections over the 15 quarters by payment level and share of total dollars collected. The summed collections at the bottom of the table show that parents in the increasing arrears pattern paid a total of \$221,665 over the 15 quarters. By comparison, the decreasing arrears pattern paid \$2,329,968—about ten times as much.

The table shows the percentage of noncustodial parents clustered within a payment level as well as the percentage of total collected. Almost half (46.2 percent) of noncustodial parents in the Increasing debt pattern paid nothing during the 15 quarters. And the next largest percentage (38.2) paid less than \$2,250, less than \$50 a month. Half (49.3 percent) paid less than \$7,500; in other words, less than \$166 a month.

By contrast, all of the noncustodial parents in the Decreasing pattern paid something during the 15 quarters; and 30.6 percent paid more than \$15,000 each. This is the only debt pattern where the percentage of parents and the percentage of dollars collected were concentrated at the same payment level.³ Here the weight is at the highest payment level. Yet the parents in fact were quite evenly divided among three levels—the third through the fifth or highest level.

Parents in the Intermittent pattern were divided basically among four levels, with the weight of dollars collected in the top two levels.

Finally, the No Change pattern exhibits the most internal division. Over a third of the parents paid nothing. At the other extreme, a quarter of the parents paid 63.2 percent of the dollars collected.

Although the level with the largest group of parents usually differs from the level with the most dollars, one can perceive greater consistency by looking at adjacent or consecutive levels within a debt pattern. The weight of the Increasing pattern is at the first three levels. The weight of the Decreasing pattern is at the fourth and fifth. The weight of the Intermittent is at the fourth and fifth levels together. The weight of the No Change pattern is more

³ As an aid to reading, the largest percentage of parents and the largest percentage of dollars collected for each debt pattern are printed in bold italic font.

problematic: it is more like two groups, one at the fourth and fifth level, but a nonpaying minority at the other extreme.

Table 10. Collections During 15 Quarters by Payment Level and Share of Total Dollars

<i>Payment Level</i>	<i>Debt Pattern of Noncustodial Parent</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Paid \$.00	N = 92	N = 0	N = 18	N = 60
Percentage of NCPs	46.2		9.0	35.7
Sum of dollars collected	\$.00		\$.00	\$.00
Percentage of total collected	0.0		0.0	0.0
Under \$2250	N = 76	N = 19	N = 42	N = 7
Percentage of NCPs	38.2	9.5	21.1	4.2
Sum of dollars collected	\$ 51,150.32	\$ 26,616.15	\$ 48,778.01	\$ 5,756.28
Percentage of total collected	23.1	1.1	2.8	0.4
\$2,250 < 7,500	N = 22	N = 59	N = 50	N = 22
Percentage of NCPs	11.1	29.6	25.1	13.1
Sum of dollars collected	80,372.94	261,949.55	\$ 215,368.09	\$ 113,265.12
Percentage of total collected	36.3	11.2	12.5	7.3
\$7,500 < 15,000	N = 8	N = 60	N = 53	N = 38
Percentage of NCPs	4.0	30.2	26.6	22.6
Sum of dollars collected	71,918.36	676,334.55	585,697.93	\$ 448,008.02
Percentage of total collected	32.4	29.0	33.9	29.0
\$15,000 or more	N = 1	N = 61	N = 36	N = 41
Percentage of NCPs	0.5	30.6	18.1	24.4
Sum of dollars collected	18,223.38	1,365,068.20	876,923.46	\$ 975,195.94
Percentage of total collected	8.2	58.6	50.8	63.2
All NCPs with orders	N = 199	N = 199	N = 199	N = 168
Percentage of NCPs	100.0	100.0	100.0	100.0
Sum of dollars collected	\$221,665.00	\$2,329,968.45	\$1,726,767.49	\$1,542,225.36
Percentage of total collected	100.0	100.0	100.0	100.0

Table 11 brings together information about payments and wages, highlighting the relationship between the two, as Table 8 did for monthly orders and wages. Where we have both wages and payments available, we have calculated a Payment to Wage (PTW) ratio similar to the earlier ratio. In reading this table, it is important to remember that both the payments and the wages are summed for the 15-quarter period (not annualized). Because wage information is lacking, we have excluded Initiating Interstate cases here.

Table 11. Ratio of Payments to Wages for 15 Quarters

<i>Payment Level of NCPs with Orders Excluding Initiating Interstate (IJ)</i>	<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Paid \$.00	71	0	13	34
No wages	37		5	21
Wages reported	34		8	13
Median wage reported	\$ 3,225.15		\$ 6,475.54	\$ 2,771.40
Under \$2,250	56	16	37	6
No wages	12	10	6	2
Wages reported	44	6	31	4
Median wage reported	\$ 10,094.68	\$ 81,229.71	\$ 15,256.03	\$ 21,433.62
Median PTW ratio ^a	.055	.015	.060	.078
\$2,250<\$7,500	19	45	39	19
No wages	2	11	9	6
Wages reported	17	34	30	13
Median wage reported	\$ 15,738.56	\$ 69,132.27	\$ 27,891.84	\$ 94,851.57
Median PTW ratio	.190	.075	.180	.060
\$7,500<\$15,000	4	48	48	37
No wages	0	15	5	5
Wages reported	4	33	43	32
Median wage reported	\$ 28,734.95	\$ 86,210.50	\$ 74,033.53	\$ 124,705.53
Median PTW ratio	.305	.134	.153	.104
\$15,000 or more	1	56	32	40
No wages	0	16	8	8
Wages reported	1	40	24	32
Median wage reported	\$ 45,634.25	\$ 106,163.98	\$ 112,412.27	\$ 159,290.71
Median PTW ratio	.399	.183	.209	.135
All	151	165	169	136
Median amount paid	\$ 50.00	\$ 10,891.50	\$ 6,978.36	\$ 9,110.18
Paid > \$.00	117	165	161	123
Wages reported	100	113	136	94
Median wage reported	\$ 7,623.61	\$ 86,229.12	\$ 43,243.87	\$ 113,726.90
Median PTW ratio	.108	.128	.152	.112

^a The Payment to Wage (PTW) ratio was obtained by dividing total child support payments for 15 quarters by total wages for the same period.

At the bottom, under "All," the median amount paid is for all the NCPs in the debt pattern with orders (excluding IJ cases) including those who paid nothing.

The PTW ratio is of course computed only for parents who had both wages and payments.

The table shows considerable fluctuation in PTW ratios even within a debt pattern, depending on the payment level. Generally, within a debt pattern, those at higher payment levels show higher PTW ratios. Yet when we look at the bottom line—the median PTW ratio for each debt pattern—we find a surprising similarity in range, quite a contrast with the wide swings of the monthly order to wage ratio presented above.

We suggest that the seeming similarity hides different dynamics. Everyone needs to reserve a certain amount of income for basic needs. For persons with low income, the basic needs reserve makes up a higher percentage of that income than for upper-income individuals. Low income noncustodial parents will have a much lower proportion of their income available for child support payments, regardless of their motivation. Consequently, the low PTW ratios of NCPs who paid less than \$2,250 probably reflect the basic needs reserve for the Increasing (.055), Intermittent (.060), and No Change (.078) patterns. But for the Decreasing pattern, with a much larger median wage, the tiny PTW ratio of .015 may reflect a much lower order amount and debt to be paid.

In other words, we might be tempted to conclude from this table that actual payments will show a rather similar ratio to wages, regardless of debt pattern and reported wages. But this table's "bottom line" can be deceptive without taking into consideration the interplay of other variables.

Impact on Arrears

The case assessment looks at a sample of noncustodial parents defined by the debt pattern they exhibited over a period of 15 quarters. In this section we have looked at order amounts, payments, and wages over that 15-quarter period. We have also explored the relationship between monthly order amount and wages, and between payments and wages. What impact did these relationships have on arrearages over that period? How did arrearages change?

The top half of Table 12 displays the totals by debt pattern at the beginning and end of the 15-quarter period. The No Change pattern has by far the lowest debt both at the beginning and at the end. The Intermittent pattern was the next lowest at the beginning and showed a modest (4.8 percent) net increase by the end. The Increasing and Decreasing patterns had the highest debts at the beginning, with the Increasing at roughly 2.7 million dollars and the Decreasing at about 2.25 million dollars. The Increasing more than doubled, while the Decreasing declined by almost half over the 15 quarters.

The bottom half of the table calculates debt per noncustodial parent when we compute the average for their arrears over the 15 quarters. Beneath that, we show how Initiating Interstate cases compare to the whole group. These IJ cases appear to make an impact mainly in the No Change pattern, and here they have the effect of raising the average debt.

Table 12. Changes in Arrears Over 15 Quarters

	<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Noncustodial Parents	199	199	199	197
IV-D cases in 1993Q4	271	233	160	200
IV-D cases in 1997Q2	321	232	205	200
Total IV-D cases in 15 quarters	329	241	263	206
Debt in 1993Q4 summed	\$2,679,387.20	\$2,263,046.37	\$808,766.51	\$223,426.23
Debt in 1997Q2 summed	5,663,048.01	1,091,324.90	847,824.04	220,956.23
Net change over 15 quarters	+2,983,660.81	-1,171,721.47	+39,057.53	-2,470.00
Arrears amount averaged over quarters per NCP				
NCPs	199	199	199	168
Mean	\$21,256.01	\$ 8,438.44	\$ 5,365.10	\$ 1,321.75
Median	16,480.69	6,495.19	1,724.71	.00
Maximum	99,749.26	37,831.97	48,128.45	25,052.87
Of which:				
Initiating Interstate				
NCPs	48	34	30	32
Mean	\$20,957.88	\$ 8,220.09	\$ 4,943.50	\$ 3,211.35
Median	15,864.82	7,074.02	1,702.22	50.00
Maximum	99,749.26	32,833.60	32,415.23	25,052.87

Summing Up Fifteen Quarters

In reviewing the 15-quarter record, the Increasing debt pattern stands out in every table. These noncustodial parents faced the highest current support orders by far. All of them owed current support at least part of the 15 quarters, while some parents in the other patterns did not. With a mean of \$360.85 and a median of \$334.93 (the closest of any pattern as well as the highest), their orders appear to be the most consistent of any pattern.

From the monthly order amounts, one might expect that the Increasing pattern would show the highest wages as well. On the contrary, these noncustodial patterns had the lowest wages by far. For this pattern, monthly current support orders were higher than monthly wages.

Payments reflected wages. Of the total paid over the 15 quarters, the median amount in the Increasing pattern was just \$74.85, compared to \$10,480.32, \$5,959.56, and \$6,687.00 for the other patterns. Many parents in the Increasing pattern (46.2 percent) paid nothing in 15 quarters.

For three patterns, median payments were substantially larger than median arrears, although the amounts differed by pattern. But for the Increasing pattern, median debt far outweighed median payments.

After reviewing these tables, no technical knowledge of the child support program is required to summarize what happened to the Increasing debt pattern. Wages were low. Consequently payments were low. But orders were high. Therefore debt escalated.

But it is not so simple to understand why this happened. Why were orders so disproportionate to wages? Why did this pattern of escalating debt gain such momentum? Why was there no intervention to reverse this dynamic? What interventions *can* stop such a pattern once debt reaches such magnitude among a large group?

The remainder of this report addresses these questions. To find answers we will look beyond the 15 quarters.

Where Should We Look?

To begin with, a listing of the basic steps in the child support collection process suggests that there are several points where things can go awry.

- a. The child support order is set, based on income of the parties and the guidelines established in the Washington State Child Support Schedule. If a party does not report income, there is provision for imputing income. If income is imputed, depending on the method, the resulting support amount may be too high for the noncustodial parent to pay. Sometimes orders are already in place before DCS gets the case. Where paternity is at issue, the prosecutor often works with DCS to establish an order. At other times DCS establishes an administrative order after receiving a case.
- b. In the best scenario the noncustodial parent's income and employer are known, and DCS issues a payroll deduction notice. If not, DCS makes locate efforts as necessary, searching for the parent's address, employer, or other assets. This is critical work. If income and assets are not located, payments will not be collected.
- c. When the employer or asset is found, DCS uses available collection tools, such as a payroll deduction notice, order to withhold and deliver, or lien.
- d. Sometimes a modification is requested, because of changes in the family's circumstances, or the noncustodial parent's income changes, or the person complains that the imputed income that formed the basis of the original order was wrong. Sometimes DCS initiates a modification. Modifications are intended to update child support orders and keep them accurate for the income and circumstances of the parties. Modifications only affect future support, not an existing debt.

e. Sometimes DCS agrees to reduce some debt owed to DSHS through an informal conference board process. This may be an aid to negotiating a settlement or to assist a noncustodial parent in financial hardship.

Federal law in the late 1980s compelled states to institute uniform child support guidelines based on income. Since then, most federal legislation has focused on improving the locate and collection tools available to IV-D agencies. Most child support research has focused on the locate and collection work of IV-D agency staff. In other words, this research has usually taken the order as a given.

But problems could arise at several points. An order could be inaccurate from the beginning. Or it could later become inaccurate. Child support agencies could do inadequate locate and collection work. Modification guidelines or processes could be inflexible. Noncustodial parents could have difficult problems that collection staff do not recognize, or that guidelines do not address. Such problems can have an impact both on the accuracy of the child support orders and on the effectiveness of collection work.

Child Support Orders: Original and Modified

To examine the orders, we move from looking at the noncustodial parents to looking at their cases. As Table 13 shows, the number of cases varies by debt pattern. The Increasing debt pattern has 378 cases, followed by the Intermittent with 308, while the other two patterns have fewer cases.

In this table we distinguish between an original order and a modification. An original order is the order that initially set support for a child or children. A modification is a later order that alters the support amount for those same children.

Orders and cases are not coterminous. Some cases have multiple orders. Some cases lack orders, and no obligation was established. Other cases share an order with another case.

Multiple orders are likely to occur in situations where the parties are not married but have had on/off relationships. As additional children are born, a separate order is created to add them to the case. We expected to find a higher incidence of multiple orders in the Increasing debt pattern. Our hypothesis was that in setting a separate order for a new child, the result was a higher monthly order amount than if two children were originally covered in the same order. We found, however, that the Increasing, Decreasing, and Intermittent patterns showed the same average of 1.2 orders per case.

Table 13. Cases and Orders

	<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Total IV-D cases	378	268	308	229
Of which:				
Cases without an order ^a	5	3	2	34
Cases with order established	373	265	306	195
Average orders per case ^b	1.2	1.2	1.2	1.1
Cases with only shared order ^c	86	29	51	15
Total original orders ^d	366	291	312	201
Of which:				
Paternity orders ^e	141	53	64	32
Was paternity order default?				
Yes	84	8	17	4
No	13	14	16	5
Can't tell	44	31	31	23
Modifications	44	53	60	57
Cases ever modified	39	40	43	38
<i>Summary:</i>				
Paternity orders as percentage of original orders	38.5 %	18.2 %	20.5 %	15.9 %
Percentage of cases with orders that were ever modified	10.5 %	15.1 %	14.1 %	19.5 %

^aCases with no order established. Some of the noncustodial parents had additional cases with an order established; 29 parents in the No Change pattern had no order on any case.

^bThe average (mean) number of orders for cases with an order established. This includes both original orders and shared orders, both explained below.

^cThese cases shared an order with another case, which is listed under the next category of original orders.

^dAn original order is an order used to set initial child support on a case. A case may have multiple original orders, if new children are added to the case under separate orders. The maximum found in the sample was four orders on a case.

^eThese are orders used to establish paternity, regardless of whether they were designated as paternity orders by title or by coding on SEMS.

The type of order proved to be more important. Paternity orders were far more prevalent in the Increasing debt pattern than in the others, with 141 compared to the next most frequent, the Intermittent, with 64. Of original orders, 38.5 percent in the Increasing pattern were paternity orders. The majority of those paternity orders were default.

Modifications were not common for any debt pattern. But here the Increasing debt pattern showed the least, with 10.5 percent, while the No Change pattern had the highest at 19.5 percent. Moreover, repeat modifications of the same case were more common in the other patterns than in the Increasing.

The Basis of Orders

As part of the research plan, we intended to determine the income basis used to set original orders. We wanted to know what percentage were set on actual income, since these were most likely to be accurate. We also wanted to determine how income was imputed, and, especially, how often imputed median net was used.

This proved to be the most difficult and disappointing part of the case assessment. In the end we could not determine the basis of over half of the original orders. This was partly due to a flaw in the research plan and partly to poor documentation in the case record.

Documentation of the basis for setting the order usually is in the Washington State Child Support Schedule worksheet attached to the order rather than in the order itself. For cases of the vintage in this project, viewing an order depends on whether the case is still open or has been closed. To retrieve a copy for a closed case, the procedure is to contact the archiving staff in DCS state office, who then make a copy from the microfilm. For open cases, copies of orders reside in the paper files of the SEO working the case.

About 40 percent of the cases coded were already closed, while the remainder were open cases still being worked by field office staff. We decided not to ask field offices to provide copies of orders because the process of doing this would be time consuming for us, disruptive for field offices, and likely to provoke friction.

For some closed cases, we requested copies from archiving staff. Unfortunately, we found that the needed item was often missing. For example, the necessary pages from the WSCSS worksheets were frequently not microfilmed if indeed they had existed.

To discern the basis for setting the order, the coder looked at the narrative record, case comments, on SEMS. Usually the information was not entered there. The coder then resorted to detective work. She consulted charts for various years showing the need standard, grant standard, median net income by gender and age, and other tools used to set orders.

The results of her search are displayed in Table 14. She was able to document that at least 10.7 percent of the Increasing pattern orders were based on actual income, compared to 9.6 percent for Decreasing, 14.1 percent for Intermittent, and 13.4 percent for the No Change pattern. But it is possible that a good number of the "Can't Tell" category also were based on actual income.

Table 14. Income Basis Used to Set Child Support Orders

	<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Original orders ^a	366	291	312	201
Basis of original order: ^b				
Actual income of NCP	39	28	44	27
Percent of net income		4	3	
Imputed from ES or employer	17	11	20	7
Imputed median net income	41	7	17	7
Imputed need standard	44	9	17	7
Imputed grant standard	6	7	4	1
Imputed minimum wage	5	1		1
Imputed earning capacity	1		1	
Another state set order	22	51	37	34
Public assistance expended		2	1	1
Other basis		2		
Can't tell ^b	204	147	165	112
<i>Summary:</i>				
Percentage of orders based on actual income	10.7 %	9.6 %	14.1 %	13.4 %
Percent imputed median net	11.2 %	2.4 %	5.4 %	3.5 %
Percent set by other state	6.0 %	17.5 %	11.9 %	16.9 %
Percentage of can't tell	55.7 %	50.5 %	52.9 %	55.7 %

^a An original order is an order used to set initial child support on a case. A case may have multiple original orders, if new children are added to the case under separate orders.

^b Project staff did not review the paper copies of the orders on open cases, because these orders are located in field office paper files around the state. To discern the basis for setting the order, the coder looked at case comments on SEMS, but usually the information was not entered there. The coder then resorted to detective work, consulting charts for various years showing the need standard, median net income by gender and age, and other tools used to set orders.

For closed cases, we requested copies from state office to review. When a field office closed a case, DCS procedure was to send the essential case record to state office for microfilming. Upon request, archiving staff were to provide a paper copy of the requested record. Unfortunately, we found that the needed item was often missing from the archives. For example, the necessary pages from the Washington State Support Schedule worksheets were frequently not microfilmed.

The Increasing pattern is differentiated from the others by the higher percentage (though only 11.2 percent) based on imputed median net, and the lower percentage set by other states. Other than the magnitude of the "Can't Tell" category, perhaps the main surprise was the low percentage of imputed median net.

Locate Work

The quality of locate work is critical to collecting child support. Unless staff find the noncustodial parent, locate the employer and the assets, they cannot collect support. DCS locate work is sometimes essential to creating and serving an order in the first place. Decisions about seeking modifications also can depend on locating new income.

To assess the quality of locate work, the coder reviewed the case comments from 1993 to the coding date or until the case closed. She used a check list of locate tools. The effort required to use these tools ranged from simple review of screens to making personal telephone calls to employers, neighbors, and relatives of the noncustodial parent.

Table 15 is a simple list of the locate tools documented in case comments. It is arranged according to the number of noncustodial parents for whom that locate tool was used at least once. (Obviously, some tools are used repeatedly for a particular noncustodial parent and the table does not reflect this.)

Table 15. Locate Tools

<i>Locate Tool Used by DCS Staff</i>	<i>Number of Noncustodial Parents</i>
ES/SD/IT IS screens (Search of basic SEMS screens that have interfaces with Employment Security [employer, wages, unemployment compensation benefits] and public assistance program)	450
<i>Employer Inquiry</i> , DSHS18-002	395
Credit Bureau	302
Telephone	277
DOL (Department of Licensing) database for driver's license, etc.	265
WICP/CSENet (Child Support Enforcement Network for quick locate in other states; former Western Interstate Clearinghouse Program for searches within western region)	207
Central (State Office) Locate (for referral to federal locate resources)	163
DOL vehicle/vessel search	127
DOR/MLS (Department of Revenue database/Master Licensing Service database)	125
<i>Locate Inquiry Letter</i> , DSHS18-013	101
DOC/FORS (Felony Offenders Reporting System data base retrieves information about individuals under Department of Corrections jurisdiction)	76
SCOMIS/DISCIS (Superior Court Management Information System and District Court Information System) databases	72
TPQY (Third Party Query) to Social Security Administration	64
<i>Subpoena Duces Tecum</i> , DSHS 9-301	64
Phone Disk	5
Drive By	1

Our tally of locate tools used undercounts the amount of locate efforts in several ways. To make the coder's task manageable, we began the review in 1993. Obviously, many cases are much older than 1993, and intensive locate work may have been concentrated on that noncustodial parent in an earlier period. Fewer tools were available in earlier years, and some that were available were not used much (e.g., credit bureau checks), because they were cumbersome and expensive.

A very major change is the amount of automated matches and computerized searches available today. Had we tallied the locate work prior to 1993, we would have found more use of inquiry forms sent by mail to individuals and probably more telephone calls. The tables below provide a look at use of locate tools for the past eight years or until the particular case closed.

But this simple list does not tell us much that we want to know about locate tools. Can we show a correlation between arrearage patterns and use of locate tools? For example, is a pattern of steadily increasing debt associated with lack of locate work? Or does the correlation show extra locate work devoted to this debt pattern of hard-to-collect cases?

Table 16 shows the number of locate tools used according to debt pattern. Within the patterns, the table also delineates those noncustodial parents whose cases were Initiating Interstate (IJ). It sometimes requires extra work to discover that the NCP is not in Washington. On the other hand, after initiating an interstate referral, DCS locate work ceases.

Table 16. Relationship of Locate Work and Debt Pattern

	<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
All Noncustodial Parents	199	199	199	197
Number of locate tools used to find NCP or assets				
Mean	5.79	1.65	3.75	2.36
Maximum	12	8	11	13
Sum	1,153	329	747	465
Initiating Interstate (IJ) NCPs	48	34	30	51
Mean	4.33	1.38	3.53	2.98
Maximum	12	5	10	10
NCPs with no order				29
Mean				4.24
Maximum				10

For the one debt pattern that contains some noncustodial parents without obligations, the table also looks at locate work on these noncustodial parents separately. Since DCS cannot establish an order without serving notice on the individual, extra locate efforts should have been made.

The debt pattern model proved useful in pinpointing the concentration of locate effort within the case load. There are indeed marked differences in the number of locate tools utilized. The table provides the average number of tools used per noncustodial parent in that debt pattern. It shows the maximum number of tools used for a noncustodial parent in that pattern. Finally, it shows the total number of tools utilized for noncustodial parents in that category.

Clearly, collection staff devoted much more locate work to pursuing noncustodial parents in the Increasing debt pattern. After that, the Intermittent pattern got the most attention. Within the No Change pattern, over one-fourth of the work went to seeking the small group with no order established.

The Decreasing arrears pattern showed the least attention during the period examined. But here the age of the obligation in relation to the period examined is especially important, since many of the cases in this pattern were arrears only, some with quite different payment records prior to the end of current support.

Generally, this table indicates that collection staff concentrate their locate efforts appropriately where the attention is most urgently needed. But do they try “enough” tools? Certainly, there is a difference between the mean and the maximum locate tools used for every category in this table. But in assessing the difference, one must recall the issue about the age of the obligation relative to the period examined. Work done before 1993 was not coded. Moreover, most tools are not appropriate for every situation. And if the SEO gets a hint that the missing NCP has had trouble with the law, quickly checks DOC/FORS and gets a “hit,” it is pointless to try ten more tools.

Table 17 turns from the noncustodial parent’s debt pattern to the case level. Here we examine the relationship between locate work and case outcomes. The table includes only the cases that have closed. Cases are categorized by the case closure reason. The reasons are in turn grouped roughly according to the following scheme: successful payment outcomes; cases closed for custodial parent or interstate issues; problems with the debt (e.g., not legally enforceable); and noncustodial parent problems that made the debt uncollectible (e.g., NCP dead, permanently disabled, recurrently mentally ill, unemployable because of addiction or other problems).

Generally, the locate effort increases per case as we move down through the categories. Cases closed for reasons related to the noncustodial parent received much more locate attention per case in the period examined than those in the successful payment outcomes category. (We will look at case closure outcomes in more detail in the final report.)

Table 17. Locate Work and Case Outcomes

<i>Closure Reason</i>	<i>Number of Cases</i>	<i>Locate Tools Used</i>	
		Mean	Sum
Paid in full	220	2.09	459
Pd. in full with some debt lost to statute of limitations	21	2.62	55
Pd. in full after some debt reduction	27	2.93	79
Child no longer in CP's household	10	2.40	24
Small debt/no CFS due or other policy reasons	18	3.78	68
Custodial Parent issues	57	3.82	218
Interstate issues	51	4.49	229
No debt established	18	4.28	77
Not legally enforceable	9	5.22	47
NCP dead or permanently disabled	14	4.79	67
Unable to locate NCP	39	5.90	230
NCP uncollectible	7	6.71	47
None given/ coder could not tell	11	2.91	32
All closed cases	502	3.25	1,632

Locate Work and Debt Pattern

The results presented in Tables 16 and 17 show that collection staff used a variety of tools to locate noncustodial parents and their assets. They concentrated their locate efforts appropriately where attention was most urgently needed. When we look at locate efforts in the framework of the debt pattern model, locate efforts were concentrated on noncustodial parents with steadily increasing arrears, and to a lesser extent, on locating noncustodial parents without a support order. From the perspective of case closure reasons, locate efforts were concentrated on cases where DCS could not locate the noncustodial parent or determined that the noncustodial parent lacked assets and employability. Clearly, the SEO did not give up easily.

While individual support enforcement officers may do a perfunctory job of locate, our analysis indicates that by and large DCS collection staff do diligent, appropriate, and focused locate work.

For this study our major focus is to explore the relationship of various factors to debt patterns. Had we found that the least locate effort was associated with the Increasing debt pattern, we might have decided that poor staff work was an important factor. Had we found that locate work was the same across four debt patterns, we might have concluded that staff work is rather perfunctory and

done by rote. But in fact we found that staff devote the most effort to the Increasing debt pattern. Moreover, within debt patterns they devoted differential amounts of attention to the most urgent problems.

Consequently, we do not see inadequate locate work as a “reason” for such persisting debt patterns, especially the Increasing debt pattern. On the contrary, the Increasing pattern’s debt would probably have been larger without locate work.

Having said this, it is still likely that with more training in new techniques and with more time to devote to locate efforts, DCS staff could collect more money. Enhanced locate work can play an incremental role in improving collections.

Coder’s Comment

Locate and collection tools have increased dramatically since 1995 where the core sample of noncustodial parents was obtained for this study. The increasing use of the internet alone has opened many opportunities. An SEO can now search to see if an NCP is deceased in any state by running the social security number through the Social Security Death Index. The Washington State Department of Revenue is on-line, which makes searching to see if an NCP is self-employed very easy and quick. The various “people finders” on the Internet such as 555-1212 make it unnecessary to call the telephone company’s Information number or look through phone books.

It is very easy to search for out-of-state noncustodial parents or employers with these tools as well. In addition, many out-of-state counties and even prisons are on-line, making it simple to search to see if a noncustodial parent owns property or is incarcerated.

Unfortunately, it did not appear from the case comments reviewed for the case assessment that SEOs were taking full advantage of these new locate opportunities. This may be due to unfamiliarity with the internet and what it can offer or to lack of time to pursue intense locate activities. The coded data from the case assessment study show that in general DCS collection staff have used traditional locate tools appropriately and actively. Adopting new locate resources may take some time and may require DCS to emphasize new locate training.

Barriers to Collection

In designing the case assessment, we addressed some questions raised by our earlier research findings. In the DCS research project on hard-to-collect cases completed in 1999, we found serious barriers to collection for three-fourths of the sample treatment group cases.⁴ We discovered that almost half of the noncustodial parents had multiple open IV-D cases, ranging from two to twelve, during the project. At least 30 percent had corrections records; over 12 percent were incarcerated during the project. Many were recurrently on public assistance, with histories of mental or physical illness or substance abuse, and over 30 percent received grants during the project.

Because the earlier project was limited to severely delinquent cases, we could not determine how widespread such barriers are among the noncustodial parents in the DCS case load. Accordingly, we could also not estimate how much impact these barriers have on the total child support debt in Washington.

Consequently, as part of the current Arrearages project, we decided to investigate the pervasiveness of barriers to collection across the case load.

In assessing barriers to collection here, we looked at the history of the noncustodial parent's involvement with DCS, not just at the 15-quarter period on which the parent's debt pattern was determined. In counting the number of cases we also looked at the parent's history with DCS, rather than at the number of cases open during the 15 quarters or the maximum open at any one time.

With such a broad definition and assessment, the specific impact of one time frame should be minimized. Are barriers still correlated with debt patterns? Yes.

As Table 18 shows, noncustodial parents in the Increasing debt pattern are much more likely than others to have a history of multiple cases, public assistance grants, and a corrections record. For each of those issues, about half of the parents in the Increasing pattern showed a documented history. Only about a fifth of Increasing debt pattern parents (21.6 percent) did not have an identified barrier, compared to 57.8, 51.8, and 64.5 percent of parents in the other debt patterns.

About half of the parents in the Intermittent pattern did not have an identified barrier. Nevertheless, this pattern ranks second in the percentage of parents with such barriers. Of these parents, 34.2 percent had multiple cases, 28.1.

⁴ Child Support Performance Measurements: A Test for Working Hard-to-Collect Cases, conducted under OCSE Grant Number 90FF003801. See Executive Summary of the final report *Overcoming the Barriers to Collection*, June 1999. For this project sample, a hard-to-collect case was defined as an open IV-D case with debt over \$500, and no payments within six months, except IRS offsets. In fact, however, about half the cases had never received a payment at sample selection, and the average (mean) debt was \$11,338.40, with a median debt of \$6,158.87.

Table 18. Distribution of Barriers to Collection by Debt Pattern

<i>Documented Barrier</i>	<i>Debt Pattern of Noncustodial Parent</i>			
	<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
	(Percent)	(Percent)	(Percent)	(Percent)
Corrections record/arrests ^a	49.2	8.5	19.0	13.2
History of grants/public assistance ^b	51.7	12.6	28.1	18.3
Multiple cases ^c	51.3	31.7	34.2	13.2
Drugs/alcohol ^d	25.1	4.5	8.5	5.1
None	21.6	57.8	51.8	64.5

^a Includes Department of Corrections number, incarceration, and documentation of arrests.

^b NCP has received AFDC/TANF, food stamps, GA-U or GA-X, or SSI.

^c NCPs in the samples had multiple cases ranging from two to seven.

^d This barrier is significantly undercounted. To code this barrier, we relied only on GA-W grants and case comment documentation. The percentages listed under corrections records probably reflect more drug and alcohol abuse.

percent had a public assistance history, and 19 percent showed a corrections and arrests history.

The Intermittent pattern represents far more noncustodial parents than the other three patterns together. If there can be said to be an “average noncustodial parent” making up the bulk of an SEO’s case load, the profile would come from the Intermittent pattern. The prominence of barriers to collection offers a clue to the up-and-down pattern of debt and payments.

Multiple Cases, Multiple Children, Multiple Roles

The next three tables examine the incidence of multiple cases in the sample. Table 19 looks at number of IV-D cases, children, and amount of child support ordered.

Except for noncustodial parents in the Increasing debt pattern, the median number of cases is one. That is, more than half of the noncustodial parents in three debt patterns have only had one IV-D case on which they owed child support. The median number of IV-D cases for noncustodial parents in the Increasing debt pattern was two. Nevertheless, multiple cases are frequently found among the noncustodial parents in the sample.

Table 19. Multiple Cases, Obligations, and Debt Pattern

IV-D Cases ^a		Debt Pattern of Noncustodial Parent (NCP)			
		Increasing	Decreasing	Intermittent	No Change
1	Noncustodial Parents	97	136	131	171
	Children ^b				
	Mean	1.75	1.68	1.60	1.63
	Median	1.00	1.00	1.00	1.00
	Maximum	5	4	6	5
	Maximum MOA ^c				
	Mean	\$ 367.83	\$ 293.06	\$ 344.18	\$ 272.06
2	Noncustodial Parents	54	53	41	18
	Children				
	Mean	2.30	2.53	2.24	2.56
	Median	2.00	2.00	2.00	2.50
	Maximum	5	5	7	5
	Maximum MOA				
	Mean	\$ 419.65	\$ 425.15	\$ 404.88	\$ 285.96
3	Noncustodial Parents	25	8	15	7
	Children				
	Mean	3.04	1.88	3.40	3.29
	Median	3.00	2.00	3.00	3.00
	Maximum	5	3	6	4
	Maximum MOA				
	Mean	\$ 528.69	\$ 299.45	\$ 418.21	\$ 314.29
4	Noncustodial Parents	15	2	8	1
	Children				
	Mean	3.47	5.00	3.50	2.00
	Median	4.00	5.00	3.50	2.00
	Maximum	5	6	6	2
	Maximum MOA				
	Mean	\$ 543.89	\$ 684.50	\$ 533.18	\$ 476.00
5-7	Noncustodial Parents	8	0	4	0
	Children				
	Mean	4.63		3.50	
	Median	4.00		3.50	
	Maximum	10		4	
	Maximum MOA				
	Mean	\$ 698.88		\$ 520.95	

^a The total number of IV-D cases on which the individual has been the noncustodial parent (NCP), according to the DCS case management data system (SEMS). These cases were not necessarily open at the same time. The No Change debt pattern includes 29 NCPs without an order.

^b The total number of children on the IV-D cases where the individual is the noncustodial parent. If a particular child is listed on multiple cases, the child is only counted once.

^c The maximum monthly current child support the noncustodial parent owed at any one time.

The debt patterns most likely to have multiple cases were the Increasing and the Intermittent. They also had larger numbers of cases. Decreasing and No Change pattern parents sometimes had two or three cases, while 23 Increasing and 12 Intermittent pattern parents had four or more cases each.

In the earlier project on hard-to-collect cases we encountered numerous noncustodial parents with multiple cases open at once. In the current project we did not find such extreme numbers. The maximum number of cases we found in this relatively small stratified sample was seven for the Increasing pattern and six for the Intermittent, and these were not open at the same time.⁵

In Table 19 the item *Maximum MOA* is the maximum monthly order amount the NCP was ever ordered to pay at one time. If the NCP had more than one case open at the time, the item is the maximum sum of order amounts (elsewhere abbreviated as MAXSMOA). Within a debt pattern, the median order amount usually increases as the number of cases increases.

The item *Children* refers to the total number of children for whom the NCP ever owed child support on a IV-D case. If a child appeared on more than one case, the child was only counted once. As the number of cases increases, the number of children also tends to increase, but not always.

Overall, noncustodial parents in the Increasing debt pattern had the most children for whom they owed support. However, most parents with one or two cases did not have many children to support. The median for those with one case was one child, and this was consistent across debt patterns. The mean and median number of children was both low and quite consistent across debt patterns for parents with one or two cases.

The next table, Table 20, continues the examination by number of cases, this time looking at the payments and debts associated with the obligations in the previous table. For both the Increasing pattern and the Intermittent pattern, accumulated arrears tend to increase with the number of cases. Payment means and medians show no consistent trend associated with number of cases for any of the debt patterns.

Understanding Multiple Cases

Our previous work on hard-to-collect cases left us with a number of questions about interpreting the phenomenon of multiple cases:

- *To what extent are multiple cases the outcome of relationships with multiple partners?*

Outside readers often assume that multiple cases reflect the number of people who have children with multiple partners. Yet readers within the IV-D

⁵ One NCP with seven cases had six cases open at the time of his maximum monthly order amount.

Table 20. Multiple Cases, Payments, and Debts

IV-D Cases		Debt Pattern of Noncustodial Parent (NCP)			
		Increasing	Decreasing	Intermittent	No Change
1	Noncustodial Parents	97	136	131	145
	Total amount paid				
	Mean	\$ 7,562.44	\$26,510.25	21,840.97	26,450.77
	Median	3,597.38	21,537.87	16,030.37	23,149.89
	Debt on open cases 3/01/01	83 NCPs	68 NCPs	65 NCPs	84 NCPs
	Mean	28,392.55	3,087.78	2,660.25	4,258.95
	Median	24,746.35	785.33	220.75	42.48
	Debt shown on closed cases	15 NCPs	68 NCPs	66 NCPs	61 NCPs
	Mean	4,897.04	.00	403.40	291.53
	Median	.00	.00	.00	.00
2	Noncustodial Parents	54	53	41	16
	Total amount paid				
	Mean	7,027.47	28,194.10	19,095.16	23,533.55
	Median	2,793.50	21,885.31	9,609.64	23,638.72
	Debt on open cases (3/01/01)	48 NCPs	27 NCPs	27 NCPs	8 NCPs
	Mean	35,829.17	5,361.03	6,259.33	1,543.90
	Median	34,551.00	3,192.98	2,358.48	400.64
	Debt shown on closed cases	18 NCPs	45 NCPs	30 NCPs	14 NCPs
	Mean	3,275.86	416.65	941.66	567.30
	Median	.00	.00	.00	.00
3	Noncustodial Parents	25	8	15	6
	Total amount paid				
	Mean	9,062.97	38,944.67	23,807.13	6,755.98
	Median	5,539.57	39,135.46	10,961.20	3,044.31
	Debt on open cases 3/01/01	23 NCPs	6 NCPs	14 NCPs	4 NCPs
	Mean	31,563.13	972.12	9,799.79	7,937.17
	Median	21,544.35	131.00	5,546.45	7,532.63
	Debt shown on closed cases	12 NCPs	8 NCPs	11 NCPs	4 NCPs
	Mean	9,023.56	.00	2,895.11	1,264.44
	Median	.00	.00	.00	411.37
4	Noncustodial Parents	15	2	8	1
	Total amount paid				
	Mean	4,283.17	15,767.50	16,681.99	17,593.57
	Median	591.00	15,767.50	17,559.96	17,593.57
	Debt on open cases 3/01/01	12 NCPs		6 NCPs	1 NCP
	Mean	55,462.69		30,790.07	.00
	Median	47,493.08		25,773.68	.00

IV-D Cases		Debt Pattern of Noncustodial Parent (NCP)			
		Increasing	Decreasing	Intermittent	No Change
	Debt shown on closed cases	6 NCPs	2 NCPs	5 NCPs	1 NCP
	Mean	17,125.49	.00	82.16	.00
	Median	220.00	.00	.00	.00
5-7	Noncustodial Parents (N)	8	0	4	0
	Total amount paid				
	Mean	1,680.33		15,458.90	
	Median	1,185.64		14,744.24	
	Debt on open cases 3/01/01	8 NCPs		3 NCPs	
	Mean	71,728.12		18,595.44	
	Median	70,374.27		11,306.49	
	Debt shown on closed cases	3 NCPs		3 NCPs	
	Mean	1,248.00		.00	
	Median	.00		.00	

community know that multiple cases may reflect several constellations of human relationships.

- *To what extent do multiple cases reflect the disintegration of the family and the incidence of social problems such as substance abuse?*

We noted, for example, a number of instances in which some of the same parties—not just the noncustodial parent—appeared on more than one case. A child might be one of three siblings on a nonassistance case with mother as custodial parent and father as noncustodial parent. The same child might also be one of two children on a public assistance case with grandmother as custodian and father as noncustodial parent. The same child might also be on a foster care case with both parents as joint NCPs. (Of course, DCS might also have a case in which one of the child's siblings lives with that father, while the mother is the NCP owing support. And this case would not appear within our multiple case count for the hard-to-collect study.)

Regardless of the reason for multiple cases, DCS must still try to collect support. But the remedies may differ, and the relevant partners inside and outside DSHS who might help us may differ, depending on the reason the noncustodial parent faces multiple obligations.

- *Why do multiple cases result in such escalating debt?*

On the earlier project, we found that many noncustodial parents made substantial payments, but the money collected was not sufficient to cover all their obligations. Yet support orders are supposed to take into account a

parent's other obligations. And to the extent that multiple cases reflect the children's serial moves from one household to another, this should not substantially increase the amount of the debt.

Because of these and other issues from the earlier project, we incorporated questions about the number of different custodial parents and the number of different children on the noncustodial parent's cases (i.e., eliminating duplication) into the case assessment for the current Arrearage project. We also coded whether the noncustodial parent from our sample was the custodial parent on another IV-D case. If so, we coded the total number of children, without duplication.

In other words, we tried to assess the individual's involvement within the IV-D caseload—cases and children for which the individual owed support, and cases and children for which the individual sought support as custodial parent. Of course, this does not necessarily cover an individual's total obligations.⁶ But it does include the obligations for which the IV-D agency provides services.

Table 21 summarizes the IV-D involvement of noncustodial parents in our sample. It shows the number of cases on which the noncustodial parent has owed a support obligation. The table shows the number of different children and custodial parents for those cases, without duplication.

The median number of children and the median number of custodial parents is the same across debt patterns. The median number of children for whom the noncustodial parent owes support is two, while the median number of custodial parents is one. But the wider variability within debt patterns produces differing means. The mean and sum are highest for the Increasing arrears pattern, with the Intermittent pattern ranking second.

For every debt pattern, the number of custodial parents is less than the number of IV-D cases for the noncustodial parent. This shows that at least part of the reason for multiple cases in each debt pattern is family disintegration rather than having children with multiple partners.

Thus far, data analysis shows that of the 259 noncustodial parents with multiple cases, 110 have more cases than custodial parents, or more cases than children. This leaves 149 whose multiple cases could be entirely due to multiple partners. However, until we separate out foster care and cases where the custodian is not a parent, we cannot provide an accurate account for those 149 noncustodial parents.

⁶ The NCP might be in an intact family with a new spouse and new children, as well as supporting the spouse's child from another relationship. The NCP might also owe child support to someone else for additional children on a direct pay or PSO case. (For the first time, we will have an opportunity to investigate this realm of obligations on another project now underway. The Study of Washington State Child Support Orders, undertaken with another grant from OCSE, looks at both IV-D and non IV-D recent Washington support orders, examining the worksheets on which support amounts are based.)

Table 21. Summary: IV-D Cases, Children, and Roles

		<i>Debt Pattern of Noncustodial Parent (NCP)</i>			
		<i>Increasing</i>	<i>Decreasing</i>	<i>Intermittent</i>	<i>No Change</i>
Number of Noncustodial Parents		199	199	199	197
Number of Cases as NCP	Mean	1.93	1.38	1.57	1.18
	Median	2	1	1	1
	Maximum	7	4	6	4
	Sum	385	274	312	232
Children on NCP's Cases	Mean	2.32	1.94	1.98	1.77
	Median	2	2	2	2
	Maximum	10	6	7	5
	Sum	459	387	394	349
Custodial Parents ^a	Mean	1.79	1.30	1.45	1.14
	Median	1	1	1	1
	Maximum	6	3	5	3
	Sum	357	258	288	225
NCP also CP on IV-D case ^b	Number	32	18	40	18
	Percent	16.1	9.0	20.1	9.1
Cases as CP ^c	Mean	.32	.15	.39	.14
	Median	0	0	0	0
	Maximum	11	6	6	4
	Sum	63	29	77	28
Total Children ^d	Mean	2.42	1.98	2.06	1.81
	Median	2	2	2	2
	Maximum	10	6	7	6
	Sum	481	395	410	356
Total IV-D Cases as NCP and CP					
	Mean	2.25	1.52	1.95	1.32
	Median	2	1	1	1
	Maximum	14	7	10	5
	Sum	448	303	389	260

^a The total number of custodial parents on these IV-D cases (without duplication).

^b The number of noncustodial parents in the sample who also have at least one IV-D case on which they are the custodial parent.

^c The number of cases on which this individual is the custodial parent (CP).

^d The total number of children on the individual's IV-D cases, including cases where the individual is the NCP and cases where the individual is the CP. If a particular child falls in both categories, the child is counted only once.

Next the table shows the number and percentage of noncustodial parents who have also been *custodial* parents on other IV-D cases.

Quite a few noncustodial parents in the sample were also custodial parents on other IV-D cases. The Intermittent pattern showed the highest number—40, which constituted 20 percent of noncustodial parents in that pattern. The Increasing pattern came next, with 16.1 percent. Moreover, those who were custodial parents in these two patterns averaged about two cases each in that role. One individual in the Increasing pattern was the custodial parent on 11 cases.

Finally, the table sums the number of IV-D cases on which the individual has been a party, both as noncustodial and custodial parent. It shows the total number of children, without duplication, on those cases.

Again, looking at this additional dimension does not have an impact on the median number of children or cases. The median remains the same across debt patterns. It is the variance or range within debt patterns that increases, and consequently the mean. Once again, the Increasing debt pattern shows the highest numbers for total children and total IV-D cases, followed by the Intermittent pattern.

Although not evident in Table 21, our data analysis shows that noncustodial parents with smaller numbers of cases (1-3 cases on which they owe support) are more likely than the ones with 4-7 cases to have additional cases on which they are the custodial parent. Consequently, the impact of having cases in both categories (as NCP and as CP) is to even out the IV-D involvement slightly. That is, this reduces the difference in IV-D involvement between individuals who owe support on one or two cases and those with six or seven.

Conclusion

In this interim report on the case assessment we have explored the role of several factors in establishing and maintaining the four debt patterns. Thus far we have gotten further in understanding the Increasing debt pattern and the Intermittent pattern than we have with the other two patterns.

Barriers to collection are greatest within the Increasing debt pattern, followed by the Intermittent pattern. Corrections record and public assistance history help to explain the poor payments and increasing arrears of the Increasing debt pattern. To a lesser extent they also help to explain the up-and-down arrears of the Intermittent pattern. Multiple cases are important as well. Again, noncustodial parents in the Increasing debt pattern had the most cases and most children. Intermittent pattern parents ranked second.

Multiple cases are an important barrier because they require division of payments between cases. Moreover, they often indicate family disintegration

and ongoing social problems within a household as well as the consequences of adults having children with multiple partners. Multiple cases are a unique problem for IV-D agencies because they not only constitute a barrier to collection but also a reason for higher order amounts. That is, monthly order amounts tend to increase as the number of cases increases. At the same time, because orders are higher and payments must be split among cases, there is more strain on income, and debt tends to escalate.

Thus far, multiple cases appear to be the most significant reason for the up-and-down arrearages that mark the Intermittent pattern. About 20 percent of these noncustodial parents also have other IV-D cases on which they are the custodial parent. Altogether, their lives appear to be complicated, while their modest wages (at least during 15 quarters) are strained by the obligations.

For the Increasing debt pattern, barriers are higher than for any other debt pattern, yet monthly order amounts appear to be even more significant. These parents had the highest monthly order amounts during the 15 quarter period. They also ranked at the top for maximum monthly order amount owed at any one time throughout their history with DCS. Yet, at least during the 15 quarter period, they had by far the smallest wages. Escalating debt was the result.

What explains these high monthly orders? Among the variables examined so far, the most important appears to be the type of order that established support. Of these orders, 38 percent were paternity orders, and the majority of these were default. As we saw in Table 4, noncustodial parents in the Increasing debt pattern also had the highest initial debt set with court-ordered judgments. These judgments most often accompany paternity orders.

How Important Is One Debt Pattern?

Over the past 20 years, the primary goal of the IV-D program has been to increase the collection of child support. Federal legislation in the late 1980s required states to create uniform support guidelines based on income. Otherwise, attention has been directed to increasing the authority of states and the tools available to locate noncustodial parents and collect support. States have acquired an amazing collection reach, culminating in the ability to require financial institutions nationwide to withhold support payments when parents are in arrears.

Yet collection tools cannot repair the damage created by inaccurate support orders. In this study, we cannot see the harm done by setting the order too low. But the data here do show some of the damage done by setting orders too high and not correcting them.

In the abstract it is easy to see that if the order is set too high for the noncustodial parent's income, arrears will grow. Even if the collection officer uses all available locate and collection tools perfectly, arrears will grow. Nothing will fix the problem except modifying the order and possibly writing off some debt.

But in the concrete it is not always so easy to grasp the significance of such a problem for the case load. The problem looks like the unfortunate experience of a single noncustodial parent.

Or, as in this study, it may look like a problem for a relatively small proportion of the case load.

It is important to remember the stratified sampling strategy here, and the differences between debt patterns in numbers represented. The Increasing pattern shows escalating debt, but it represents a minority. The largest group by far is the Intermittent, with a modest debt growth. Growth, even modest, is not the desired direction for child support debt. Nevertheless, the Intermittent, Decreasing, and No Change patterns together have a moderating effect on debt growth by comparison with the Increasing pattern.

But let us try a thought experiment. Let us pretend that our 794 parents constitute a population of noncustodial parents rather than a mere sample. Under our imagined scenario, we can compute totals. At the beginning of the 15 quarters, the total debt was \$5,974,626.31.⁷ At the end of the 15 quarters, the combined debt is \$7,823,153.18, an increase of \$1,848,526.87, or 30.9 percent.

Approximately one-fourth of the parents had a pattern of steadily increasing arrears over the period. Their debt more than doubled over 15 quarters. They owned 44.9 percent of the combined debt at the beginning. At the end they owned 72.4 percent of the combined debt.

Of course, a critical element in producing this result was the differential debt at the beginning. But a second group of parents also had a large beginning debt, which comprised 37.9 percent of the combined debt. This group, one-fourth of the parents, had steadily decreasing arrears over the 15 quarters. At the end they owned just 13.9 percent of the combined debt. Meanwhile, the other half of the parents owned 17.3 percent at the beginning, but only 13.7 at the end of the period. This half of the population was comprised almost equally of parents whose debt level fluctuated and parents whose debt showed basically no change over 15 quarters.

There is an epilogue.⁸ After another 15 quarters, only 491 of the noncustodial parents remain, because the other 303 had paid off their debts. The total combined debt had dropped slightly, to \$7,523,754.74. The group with increasing arrears now totaled 174, because 25 had paid off their debt or had debts written off. They now composed 35.4 percent of the noncustodial parents because higher proportions in the other patterns had paid off debt. The parents with increasing arrears now have a combined debt of \$6,041,711.02. They own 80.3 percent of the debt.

⁷ See above, Table 12, p. 26.

⁸ See above, Table 4, p. 14.

One lesson of this imagined scenario is the devastating impact a pattern of steadily increasing arrears could have on a case load once the debt has reached a certain size. What kind of intervention could stop that momentum?

A second lesson is the importance of debt size at the time we start our count. Suppose the increasing group's debt at the beginning of that first quarter was only half as large? Or suppose we reduced those initial debts (judgments and administrative back support) listed in Table 4 by half?

A third lesson is the significance of the distribution of debt patterns over the caseload. In our imagined scenario there were equal numbers of parents in each debt pattern, though the amount of debt was not equally distributed. In the population of noncustodial parents our stratified sample represents, the vast majority are in the Intermittent pattern, while the smallest group are in the Decreasing pattern.

But the distribution of these patterns may be quite different in particular sections of the case load. Suppose, for example, we targeted those noncustodial parents who had at least one public assistance case in October 1993 and tracked their debt pattern for five years.

This first look does not begin to probe the wealth of information in the case assessment database. We will reserve for the final report our analysis of collection, interstate, case management, and other issues. The final report will also present the central conclusions about managing arrearages that the case assessment supports.

Appendix

Project Time Line Chart